



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/902,317	07/10/2001	Tzy-Cherng Jan	IPC-110A	8446

7590 10/23/2003
KENNETH P. GLYNN, ESQ.
24 Mine Street
Flemington, NJ 08822-1598

EXAMINER

SIMONE, CATHERINE A

ART UNIT	PAPER NUMBER
----------	--------------

1772

DATE MAILED: 10/23/2003

14

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/902,317

Applicant(s)

JAN ET AL.

Examiner

Catherine Simone

Art Unit

1772

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on July 25, 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-30 is/are pending in the application.
- 4a) Of the above claim(s) 11-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Withdrawn Rejections

1. The 35 U.S.C. 102 rejection of claims 1, 3, 4, 9 and 10 as being anticipated by Ho et al. recorded in Paper #4, Pages 3-4, Paragraph #4 has been withdrawn due to the Applicant's argument in Paper #12.
2. The 35 U.S.C. 103 rejection of claim 2 over Ho et al. in view of Hartig recorded in Paper #4, Pages 4-5, Paragraph #6 has been withdrawn due to the Applicant's argument in Paper #12.
3. The 35 U.S.C. 103 of claims 5-8 over Ho et al. in view of Kawamura recorded in Paper #4, Page 5, Paragraph #7 has been withdrawn due to the Applicants argument in Paper #12.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. **Claims 21, 23 and 29** are rejected under 35 U.S.C. 102(b) as being anticipated by Arnold et al. (5,294,472).

Arnold et al. discloses a light weight hollow thermoplastic board which comprises a first planar sheet (Fig. 1, #2); a second planar sheet (Fig. 1, #3); and a plurality of ribs (Fig. 1, #7, #8, and #9); wherein the first planar sheet and the second planar sheet are spaced apart by and are interconnected by the ribs, the ribs being longitudinally extended and having shifted patterns.

Art Unit: 1772

Regarding **claim 23**, note the thermoplastic hollow board is constructed in an integral form (see Fig. 1). Regarding **claim 29**, note the board is made of polycarbonates (see col. 2, lines 4-6).

6. **Claims 21, 22, 23, 29 and 30** are rejected under 35 U.S.C. 102(b) as being anticipated by Zygan et al. (EP 0 108 904 A1).

Zygan et al. discloses a light weight hollow thermoplastic board which comprises a first planar sheet (Fig. 1, #1); a second planar sheet (Fig. 1, #2); and a plurality of ribs (Fig. 1, #3); wherein the first planar sheet and the second planar sheet are spaced apart by and are interconnected by the ribs, the ribs being longitudinally extended and having shifted patterns. Regarding **claim 22**, note the ribs have shifted patterns in the form of sigmoid patterns (Fig. 3, #3). Regarding **claim 23**, the board is constructed in an integral form (Fig. 1). Regarding **claim 29**, note the board is made of a thermoplastic polymer selected from the group consisting of olefins, vinyl chlorides and polycarbonates (see page 5, line 28 and page 6, lines 1-6). Regarding **claim 30**, note the thermoplastic polymer is polypropylene (see page 6, line 1).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. **Claims 21-30** are rejected under 35 U.S.C. 103(a) as being unpatentable over Ho et al. (5,658,644) in view of Zygan et al. (EP 0 108 904) or Arnold et al. (5,294,472).

Regarding **claims 21 and 22**, Ho et al. a light weight hollow thermoplastic board which comprises a first planar sheet (Fig. 1, #2); a second planar sheet (Fig. 1, #3); and a plurality of ribs (Fig. 1, #4); wherein the first planar sheet and the second planar sheet are spaced apart by and are interconnected by the ribs, the ribs being longitudinally extended. However, Ho et al. fails to disclose the ribs having shifted patterns. Both Zygan et al. and Arnold et al. teach that it is old and well-known in the analogous art to have ribs having shifted patterns for the purpose of producing a light weight hollow thermoplastic board.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to have the ribs in Ho et al. have shifted patterns as suggested by both Zygan et al. and Arnold et al. in order to produce a light weight hollow thermoplastic board.

Regarding **claim 23**, note the board is constructed in an integral form (Fig. 1). Regarding **claim 24**, note the ribs (Fig. 1, #4) are positioned at right angles to the first planar sheet (Fig. 1, #2) and the second planar sheet (Fig. 1, #3) and create rectangular cross-sectioned passageways therebetween. Regarding **claims 29 and 30**, note the board is made of a thermoplastic polymer selected from the groups recited in claims 29 and 30 (see col. 3, lines 6-15).

Regarding **claims 25-28**, Ho et al. fails to disclose the ribs creating trapezoidal, elliptical, circular and u-shaped cross-sectional passageways. Normally, it is to be expected that a change in shape of the ribs would be an unpatentable modification. Under some circumstances, however, changes such as shape may impart patentability to a product if the particular shape claimed produces a new and unexpected result which is different in kind and not merely in degree from the results of the prior art. *In re Dailey et al*, 149 USPQ 47 CCPA 1966.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to change the shape of the ribs in Ho et al. to create trapezoidal, elliptical, u-shaped and circular cross-sectional passageways. One skilled in the art would have been motivated to do so in order to form a light weight hollow thermoplastic board, since it has been held that the change in form or shape of the ribs would be an unpatentable modification in the absence of showing unexpected results.

9. **Claims 24-28** are rejected under 35 U.S.C. 103(a) as being unpatentable over Zygan et al. (EP 0 108 904).

Zygan et al. discloses a light weight hollow thermoplastic board which comprises a first planar sheet (Fig. 1, #1); a second planar sheet (Fig. 1, #2); and a plurality of ribs (Fig. 1, #3); wherein the first planar sheet and the second planar sheet are spaced apart by and are interconnected by the ribs, the ribs being longitudinally extended and having shifted patterns. However, Zygan et al. fails to disclose the ribs creating rectangular, elliptical, circular, trapezoidal and u-shaped cross-sectioned passageways. Normally, it is to be expected that a change in shape of the ribs would be an unpatentable modification. Under some circumstances, however, changes such as shape may impart patentability to a product if the particular shape claimed produces a new and unexpected result which is different in kind and not merely in degree from the results of the prior art. *In re Dailey et al*, 149 USPQ 47 CCPA 1966.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to change the shape of the ribs in Ho et al. to create rectangular, trapezoidal, elliptical, u-shaped and circular cross-sectional passageways. One skilled in the art would have been motivated to do so in order to form a light weight hollow thermoplastic board,

Art Unit: 1772

since it has been held that the change in form or shape of the ribs would be an unpatentable modification absence of showing unexpected results.

10. **Claims 22 and 24-28** are rejected under 35 U.S.C. 103(a) as being unpatentable over Arnold et al. (5,294,472).

Arnold et al. discloses a light weight hollow thermoplastic board which comprises a first planar sheet (Fig. 1, #2); a second planar sheet (Fig. 1, #3); and a plurality of ribs (Fig. 1, #7, #8, and #9); wherein the first planar sheet and the second planar sheet are spaced apart by and are interconnected by the ribs, the ribs being longitudinally extended and having shifted patterns. However, Arnold et al. fails to disclose the ribs creating sigmoid, rectangular, elliptical, circular, trapezoidal and u-shaped cross-sectioned passageways. Normally, it is to be expected that a change in shape of the ribs would be an unpatentable modification. Under some circumstances, however, changes such as shape may impart patentability to a product if the particular shape claimed produces a new and unexpected result which is different in kind and not merely in degree from the results of the prior art. *In re Dailey et al*, 149 USPQ 47 CCPA 1966.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to change the shape of the ribs in Ho et al. to create sigmoid, rectangular, trapezoidal, elliptical, u-shaped and circular cross-sectional passageways. One skilled in the art would have been motivated to do so in order to form a light weight hollow thermoplastic board, since it has been held that the change in form or shape of the ribs would be an unpatentable modification absence of showing unexpected results.

Art Unit: 1772

Response to Arguments

11. Applicant's arguments with respect to claims 21-30 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion


12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Catherine Simone whose telephone number is (703)605-4297. The examiner can normally be reached on 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on (703) 308-4251. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

CAS

Catherine Simone
Examiner
Art Unit 1772
October 7, 2003


HAROLD PYON
SUPERVISORY PATENT EXAMINER
1772

10/17/03